

Amendments to claims

1 (currently amended): An adhesive composition comprising an acrylic polymer and a therapeutic agent, wherein the acrylic polymer

(i) is ~~a polymer~~ prepared from monomers selected from the group consisting of alkyl acrylate monomers, alkyl methacrylate monomers, polymerizable non-cyclic nitrogen-containing monomers and mixtures thereof,

wherein said alkyl acrylate monomers and alkyl methacrylate monomers have up to about 18 carbon atoms in the alkyl group, and

wherein said polymerizable non-cyclic nitrogen-containing monomers are selected from the group consisting of N-substituted acrylamide monomers, N-substituted methacrylamide monomers, vinylacetamides, nitriles, and mixtures thereof, and

wherein said alkyl acrylate monomers and/or alkyl methacrylate monomers are present in the acrylic polymer in amounts of from about 50 to about 98%, based on a dry weight basis of the total monomer weight of the acrylic polymer, and said polymerizable non-cyclic nitrogen-containing monomers are present in the acrylic polymer in amounts of from about 2 to about 50%, based on a dry weight basis of the total monomer weight of the acrylic polymer,

~~said acrylic polymer~~

(i) ~~comprising, on a dry weight basis of the total monomer weight of the polymer, from about 50 to about 98% of said alkyl acrylate monomers and/or alkyl methacrylate monomers and from about 2 to about 50% of said polymerizable non-cyclic nitrogen-containing monomers,~~

(ii) lacks functional groups containing reactive hydrogen moieties and

(iii) contains no post-polymerization chemical ~~crosslinker~~ crosslinking.

2 canceled

3 (currently amended): The adhesive of claim 1 wherein the acrylic polymer is prepared using a nitrile, which nitrile is methacrylonitrile or 2-cyanoethylacrylate.

4 (original): The adhesive of claim 1 which has a Tg of less than about 10°C.

5 (currently amended): The adhesive of claim 4 wherein the acrylic polymer is prepared using an alkyl acrylate monomer, which alkyl acrylate monomer is 2-ethylhexyl acrylate and/or n-butyl acrylate.

6 (currently amended): The adhesive of claim 5 wherein the ~~nitrogen-containing monomer is~~ acrylic polymer is prepared using an N-substituted acrylamide monomer and/or an N-substituted methacrylamide monomer.

7 (original): The adhesive of claim 6 wherein the ~~nitrogen-containing~~ N-substituted acrylamide is t-octyl acrylamide.

8 canceled

9 (previously amended): The adhesive of claim 1 wherein the therapeutic agent is a pharmacologically active agent.

10 (previously amended): A transdermal drug delivery system comprising the adhesive of claim 1.

11 (previously amended): The transdermal drug delivery system of claim 22 wherein the adhesive serves as a carrier for the therapeutic agent.

12 (currently amended): A transdermal drug delivery system comprising an adhesive layer and a backing layer, wherein said adhesive layer comprises

(a) an acrylic polymer, wherein said acrylic polymer

(i) ~~is a polymer~~ prepared from monomers selected from the group consisting of alkyl acrylate monomers, alkyl methacrylate monomers, polymerizable non-cyclic nitrogen-containing monomers and mixtures thereof,

wherein said alkyl acrylate monomers and alkyl methacrylate monomers have up to about 18 carbon atoms in the alkyl group, and

wherein said polymerizable non-cyclic nitrogen-containing monomers are selected from the group consisting of N-substituted acrylamide monomers, N-substituted methacrylamide monomers, vinylacetamides, nitriles, and mixtures thereof, and

wherein said alkyl acrylate monomers and/or alkyl methacrylate monomers are present in the acrylic polymer in amounts of from about 50 to about 98%, based on a dry weight basis of the total monomer weight of the acrylic polymer, and said polymerizable non-cyclic nitrogen-containing monomers are present in the acrylic polymer in amounts of from about 2 to about 50%, based on a dry weight basis of the total monomer weight of the acrylic polymer.

said acrylic polymer

- (i) comprising, on a dry weight basis of the total monomer weight of the polymer, from about 50 to about 98% of said alkyl acrylate monomers and/or alkyl methacrylate monomers and from about 2 to about 50% of said polymerizable non-cyclic nitrogen-containing monomers,
- (ii) lacks functional groups containing reactive hydrogen moieties and
- (iii) contains no post-polymerization chemical ~~crosslinker~~ crosslinking.

and

- (b) a therapeutic agent.

13 (original): The transdermal drug delivery system of claim 12 further comprising a release layer.

14 (previously amended): A method of administering a therapeutic agent to a patient comprising applying to a body surface of a patient the transdermal drug delivery system of claim 12.

15 (previously presented): The adhesive of claim 9 wherein the pharmacologically active agent is fentanyl.

16 (previously presented): A transdermal drug delivery system comprising the adhesive of claim 15.

17 (previously presented): The method of claim 14 wherein the therapeutic agent is fentanyl.

18 (previously amended): The adhesive of claim 1 comprising an acrylic polymer prepared from 2-ethylhexyl acrylate, methyl acrylate and an N-substituted acrylamide monomer.

19 (previously amended): The adhesive of claim 18 wherein the nitrogen-containing acrylamide monomer is t-octyl acrylamide.

20 canceled

21 (previously presented): The transdermal drug delivery system of claim 12 comprising an acrylic polymer prepared from 2-ethylhexyl acrylate, methyl acrylate and t-octyl acrylamide.

22 (currently amended): A transdermal drug delivery system comprising an adhesive and a therapeutic agent, wherein

said adhesive comprises an acrylic polymer, which acrylic polymer

(i) is prepared from monomers selected from the group consisting of alkyl acrylate monomers, alkyl methacrylate monomers, polymerizable non-cyclic nitrogen-containing monomers and mixtures thereof,

wherein said alkyl acrylate monomers and alkyl methacrylate monomers have up to about 18 carbon atoms in the alkyl group, and

wherein said polymerizable non-cyclic nitrogen-containing monomers are selected from the group consisting of N-substituted acrylamide monomers, N-substituted methacrylamide monomers, vinylacetamides, nitriles, and mixtures thereof, and

wherein said alkyl acrylate monomers and/or alkyl methacrylate monomers are present in the acrylic polymer in amounts of from about 50 to about 98%, based on a dry weight basis of the total monomer weight of the acrylic polymer, and said polymerizable non-cyclic nitrogen-containing monomers are present in the acrylic polymer in amounts of from about 2 to about 50%, based on a dry weight basis of the total monomer weight of the acrylic polymer,

said acrylic polymer

(i) comprising, on a dry weight basis of the total monomer weight of the polymer, from about

50 to about 98% of said alkyl acrylate monomers and/or alkyl methacrylate monomers and from about 2 to about 50% of said polymerizable non-cyclic nitrogen-containing monomers,  
(ii) lacks functional groups containing reactive hydrogen moieties and  
(iii) contains no post-polymerization chemical ~~crosslinker~~ crosslinking.

23 (new): The adhesive of claim 18 wherein the monomer composition of the acrylic polymer is 45 % by weight 2-ethylhexyl acrylate, 35 % by weight methyl acrylate and 20 % by weight of an N-substituted acrylamide monomer.